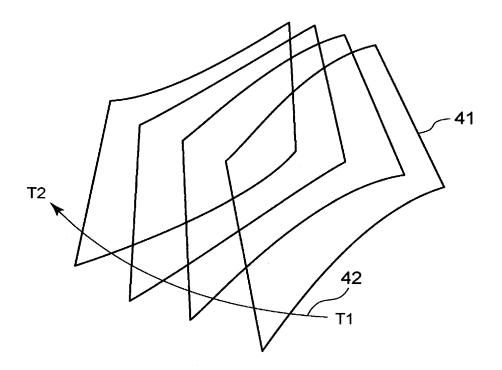


FIG. 4



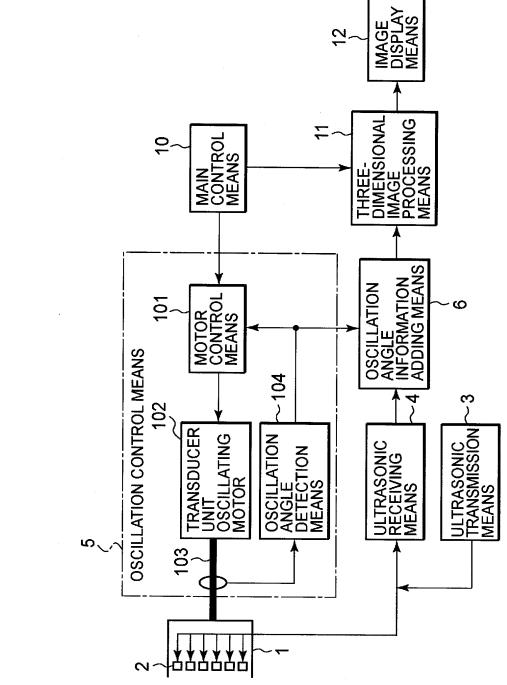


FIG. 5



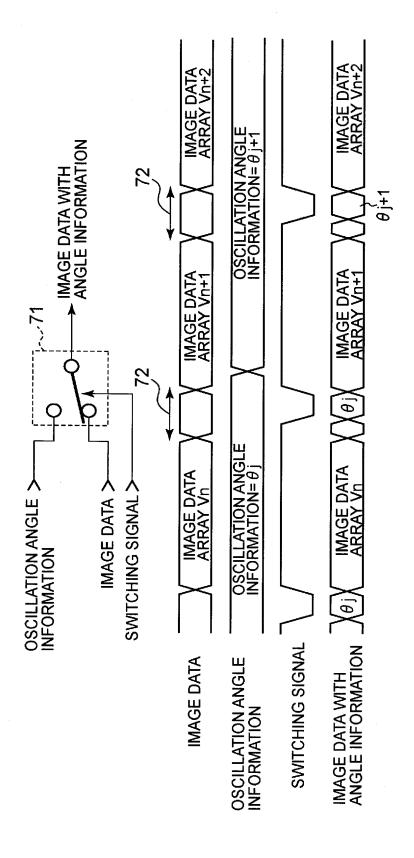


FIG. 7

ULTRASONIC TRANSDUCER UNIT OSCILLATION ANGLE $\, heta$

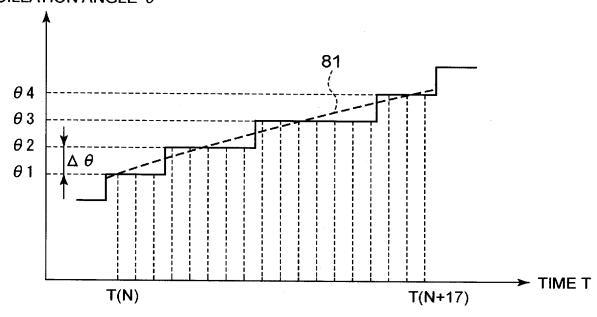
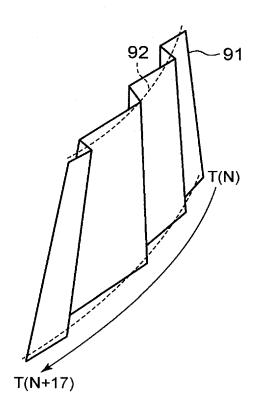
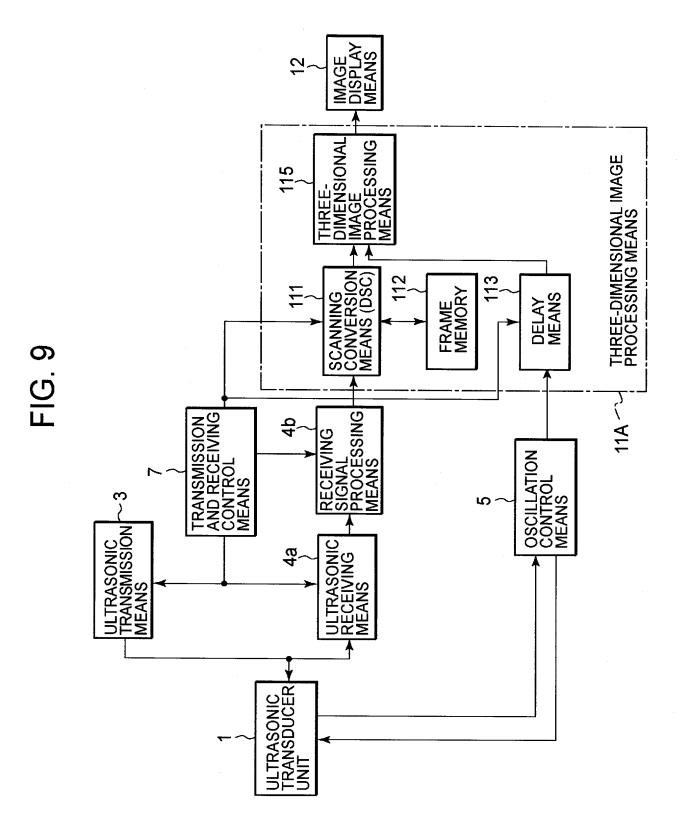


FIG. 8





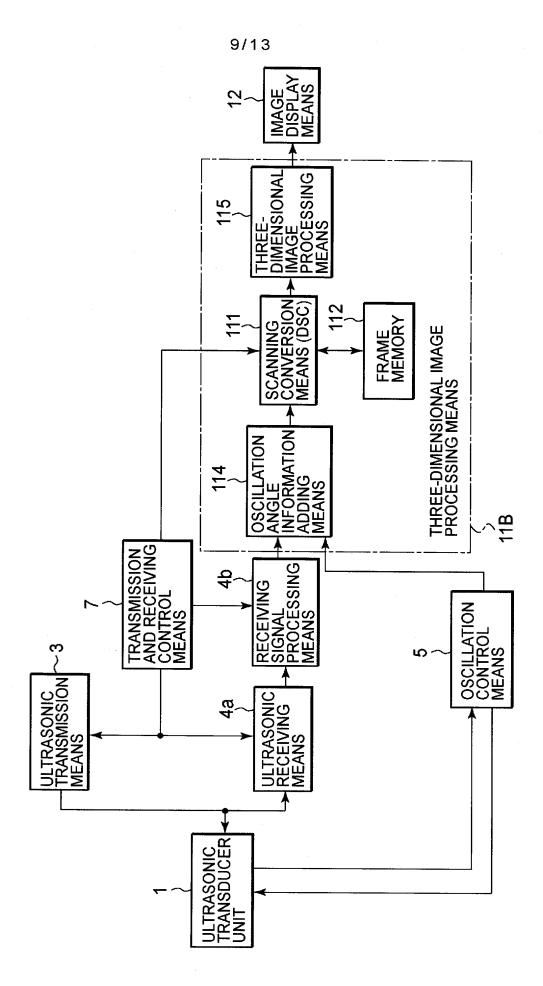
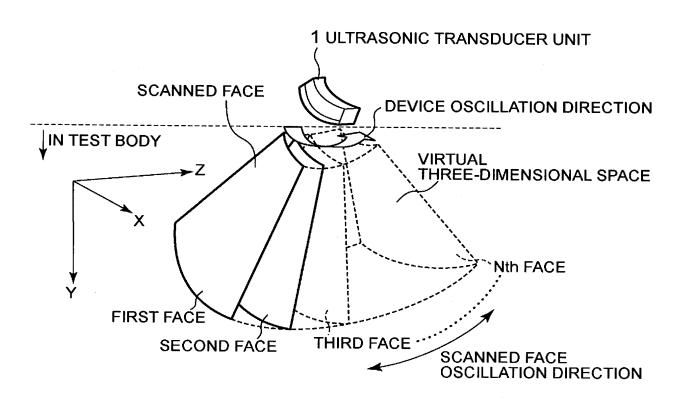


FIG. 11

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	· · · · · · · · · · · · · · · · · · ·	1	 			
1	2	3	• • •	• • •	n-1	n
ANGLE OF ACOUSTIC LINE 1	ANGLE OF ACOUSTIC LINE 2	ANGLE OF ACOUSTIC LINE 3	• • •	• • •	ANGLE OF ACOUSTIC LINE n-1	ANGLE OF ACOUSTIC LINE n
RECEIVING DATA	RECEIVING DATA	RECEIVING DATA	• • •	• • •	RECEIVING DATA	RECEIVING DATA
RECEIVING DATA	RECEIVING DATA	RECEIVING DATA	• • •	• • •	RECEIVING DATA	RECEIVING DATA
RECEIVING DATA	RECEIVING DATA	RECEIVING DATA	• • •	• • •	RECEIVING DATA	RECEIVING DATA
RECEIVING DATA	RECEIVING DATA	RECEIVING DATA	• •	• • •	RECEIVING DATA	RECEIVING DATA
RECEIVING DATA	RECEIVING DATA	RECEIVING DATA	• • •	• • •	RECEIVING DATA	RECEIVING DATA
RECEIVING DATA	RECEIVING DATA	RECEIVING DATA	• • •	• • •	RECEIVING DATA	RECEIVING DATA
RECEIVING DATA	RECEIVING DATA	RECEIVING DATA	• • •	• • •	RECEIVING DATA	RECEIVING DATA

FIG. 12 PRIOR ART



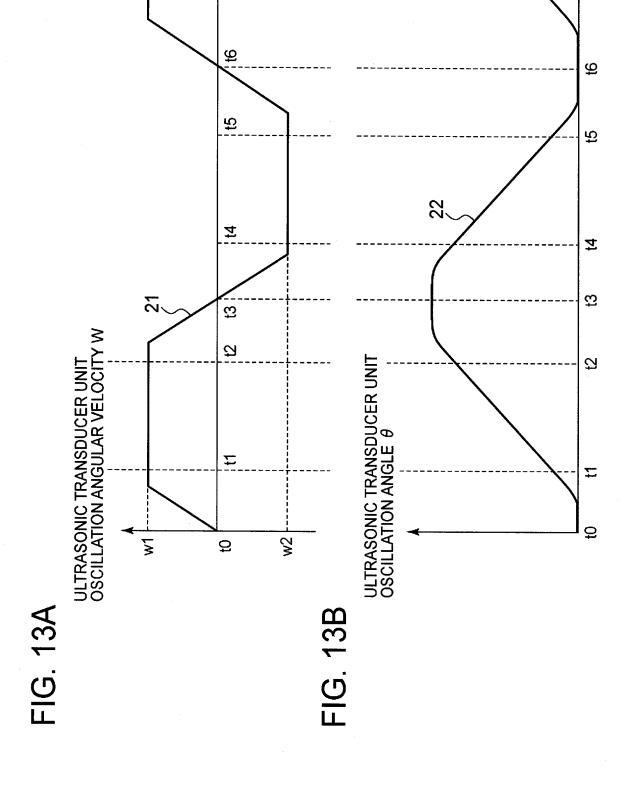


FIG. 14 PRIOR ART

